

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1           **Claim 1 (currently amended) :** Radio communications  
2           apparatus comprising:  
3           a quadrature modulator for making the transition of  
4           the phase of a modulated wave via a in-phase component and  
5           a quadrature component;  
6           a first voltage-controlled oscillator for outputting  
7           a first transmission signal;  
8           a second voltage-controlled oscillator;  
9           a first mixer for frequency-converting the first  
10          transmission signal based on the output signal of the  
11          second voltage-controlled oscillator;  
12          a phase comparator for comparing the phase of the  
13          output signal of the quadrature modulator with the phase of  
14          the output signal of the first mixer;  
15          a low-pass filter for filtering the component below a  
16          predetermined frequency of the output signal of the phase  
17          comparator and supplying the resulting signal to the  
18          frequency control terminal of the first voltage-controlled  
19          oscillator;—and  
20          a first band-pass filter for outputting a signal  
21          obtained by filtering the component in a predetermined

22 frequency band of the output signal of the quadrature  
23 modulator as a second transmission signal;  
24 a first transmitter for amplifying the first  
25 transmission signal and transmitting the resulting signal  
26 via a first antenna; and  
27 a second transmitter for amplifying the second  
28 transmission signal and transmitting the resulting signal  
29 via a second antenna.

1           **Claim 2 (currently amended):** Radio communications  
2 apparatus ~~according to claim 1, further comprising:~~  
3           a quadrature modulator for making the transition of  
4           the phase of a modulated wave via a in-phase component and  
5           a quadrature component;  
6           a first voltage-controlled oscillator for outputting  
7           a first transmission signal;  
8           a second voltage-controlled oscillator;  
9           a first mixer for frequency-converting the first  
10          transmission signal based on the output signal of the  
11          second voltage-controlled oscillator;  
12          a phase comparator for comparing the phase of the  
13          output signal of the quadrature modulator with the phase of  
14          the output signal of the first mixer;  
15          a low-pass filter for filtering the component below a  
16          predetermined frequency of the output signal of the phase  
17          comparator and supplying the resulting signal to the

18       frequency control terminal of the first voltage-controlled  
19       oscillator;  
20        a first band-pass filter for outputting a signal  
21       obtained by filtering the component in a predetermined  
22       frequency band of the output signal of the quadrature  
23       modulator;  
24        a third voltage-controlled oscillator;  
25        a second mixer for frequency-converting the output  
26       signal of the first band-pass filter based on the output  
27       signal of the third voltage-controlled oscillator; and  
28        a second band-pass filter for outputting a signal  
29       obtained by filtering the component in a predetermined  
30       frequency band of the output signal of the second mixer as  
31       a second transmission signal.

1           **Claim 3 (currently amended):** Radio communications  
2       apparatus ~~according to claim 1, further comprising:~~  
3           a quadrature modulator for making the transition of  
4       the phase of a modulated wave via a in-phase component and  
5       a quadrature component;  
6           a first voltage-controlled oscillator for outputting  
7       a first transmission signal;  
8           a second voltage-controlled oscillator;  
9           a first mixer for frequency-converting the first  
10       transmission signal based on the output signal of the  
11       second voltage-controlled oscillator;

12           a phase comparator for comparing the phase of the  
13         output signal of the quadrature modulator with the phase of  
14         the output signal of the first mixer;

15           a low-pass filter for filtering the component below a  
16         predetermined frequency of the output signal of the phase  
17         comparator and supplying the resulting signal to the  
18         frequency control terminal of the first voltage-controlled  
19         oscillator;

20           a first band-pass filter for outputting a signal  
21         obtained by filtering the component in a predetermined  
22         frequency band of the output signal of the quadrature  
23         modulator;

24           a second mixer for frequency-converting the output  
25         signal of said first band-pass filter based on the output  
26         signal of the second voltage-controlled oscillator; and

27           a second band-pass filter for outputting a signal  
28         obtained by filtering the component in a predetermined  
29         frequency band of the output signal of the second mixer as  
30         a second transmission signal.

**Claim 4 (canceled)**

1           **Claim 5 (original):** Radio communications apparatus  
2         according to claim 2, further comprising:  
3           a first transmitter for amplifying a first  
4         transmission signal output from the first

5       voltage-controlled oscillator and transmitting the  
6       resulting signal via an antenna; and  
7            a second transmitter for amplifying a second  
8       transmission signal output from the second band-pass filter  
9       and transmitting the resulting signal via an antenna.

1           **Claim 6 (original):** Radio communications apparatus  
2       according to claim 3, further comprising:

3            a first transmitter for amplifying a first  
4       transmission signal output from the first  
5       voltage-controlled oscillator and transmitting the  
6       resulting signal via an antenna; and  
7            a second transmitter for amplifying a second  
8       transmission signal output from the second band-pass filter  
9       and transmitting the resulting signal via an antenna.

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**Amendments to the Drawings:**

The attached sheets of drawings includes changes to Figs. 6-9. These sheets, which include Figs. 5-9, replace the original sheets including Figs. 5-9. Figs. 6-9 have been labeled "Related Art".

Attachment: Replacement Sheet